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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

FIGUEROA, FELIX O

ART UNIT

PAPER NUMBER

2833

MAIL DATE

DELIVERY MODE

03/09/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/800,056	Applicant(s) SATO ET AL.	
	Examiner Felix O. Figueroa	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5,12,16,33 and 38-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5,12,16,33 and 38-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/9/10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gefvert (US 5,850,457) in view of Ruzicka (US 6,118,876), Lee (US 5,589,718), Siems et al. (US 5,470,253), Glover (3,824,524) and Applicant's Admitted Prior Art (AAPA) of Figs. 12-14.

Gefvert discloses a multi-channel audio system comprising an electronic apparatus (100) having a back panel with at least four audio signal output terminals (see Fig. 8B) for a plurality of channels, the at least four audio signal output terminals including a front right audio signal output terminal, a rear right audio signal output terminal, a front left audio signal terminal, a rear left audio signal output terminal (see Fig. 8B); a plurality of speakers (102, 104, 106, 108); and a plurality of connecting cable members (see Fig. 8B), each incorporating a pair of conductor members bearing a pair of polarities and sheathed by one of a plurality of insulating sheathing members, all of the audio signal output terminals corresponding to the left channels being arranged to the right of all of the audio signal output terminals corresponding to the right channels (see Fig. 8B), the speakers being arranged corresponding to the plurality of channels. Gefvert also discloses a name of the corresponding output channel being displayed

surrounding the respective output terminal (see Fig.8B). Please note that Gefvert discloses the output terminals corresponding to the left channels being arranged to the right of output terminals corresponding to the right channels when viewed from the front of the receiver. Gefvert also discloses each of the left audio signal output terminals arranged to the same side of the right audio signal output terminals.

To the extent that Gefvert does not teach the output terminals corresponding to the positions of the speakers as viewed from the rear portion of the electronic apparatus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the position of the output terminals to correspond to the position of the speakers (left and right sides) as viewed from the rear of the apparatus, as taught by AAPA, in order to reduce wire tangling. Please note that modifying Gefvert, as taught by AAPA, results in all of the audio signal output terminals corresponding to the left channels being arranged to the right of all of the audio signal output terminals corresponding to the right channels as viewed from the rear of the apparatus; and the rear left audio signal output terminal is arranged to the right of both of the front right audio signal output terminal and the rear right audio signal output terminal on the back panel as viewed when facing the rear portion of the electronic apparatus.

Gefvert discloses substantially the claimed invention except for the plurality of colors on the signal output terminals. Ruzicka discloses (in col.7 lines 28-33) the use of an audio system having audio signal output terminals being distinguished by one of a plurality of colored labels for enabling the plurality of channels to be discernible; a

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plurality of connecting cable members distinguished by one of the plurality of colors corresponding to a color distribution of the audio signal output terminals; and the speakers being distinguished by corresponding colors to facilitate installation process. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the terminals and cable members of Gefvert with a plurality of colors, as taught by Ruzicka, to facilitate installation process.

Gefvert, as modified by Ruzicka, discloses substantially the claimed invention except for the colored mark displayed surrounding the output terminal. Lee ('718) teaches the use of colored indicia, as a colored mark surrounding a respective output terminal (col.2 lines 26-30). This feature ensures a clear view of the colored mark on the output terminal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the colored mark surrounding the output terminals, as taught by Lee, to ensure a clear view of the mark.

Gefvert, as modified by Ruzicka, discloses substantially the claimed invention except for the use of contractile tubes. Siems teaches the use of thermally contractile tubes of different colors (col.3. lines 14-18) secured to cable members to facilitate installation and connection. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use thermally contractile tubes of different colors secure to cable members, as taught by Siems, to facilitate installation and connection. To the extent that AAPA does not disclose the use of black and white colored marks, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use black and white colored marks on the

tubes to identify the polarities, in order to provide easily distinguishable marks and to match the polarities in the back panel and speakers.

Gefvert, as modified, discloses substantially the claimed invention except for the connector structure of the cable. Glover discloses a connector using a connecting cable member (5) having two conductor portions having a pair of polarities and an insulating sheathing member, one end of the connecting cable member conforming to a structure of a plug connector (1) incorporating two conductor members (27) connected to the two conductor portions; a socket connector (3) coupled with the plug connector and provided in one of a first or second apparatus, the socket connector being provided with a pair of connecting pins (35) bearing the pair of polarities; and position controlling means (see Fig.7); the plug connector being provided with a pair of coupling holes (27); and position controlling means coupling portion (see Fig.6) to ensure correct connection. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a connector structure, as taught by Glover, to ensure correct connection.

Gefvert, as modified, discloses substantially the claimed invention except for the specific arrangement of the output terminals, i.e. the top and bottom relationship. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use different positioning arrangements for the output terminals as a matter of preference, and since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Gefvert, as modified, discloses substantially the claimed invention except for a display of the pair of polarities. AAPA teaches displaying the pair of polarities in order to facilitate proper connection. It would have been obvious to one of ordinary skill in the art at the time the invention was made to display the pair of polarities, as taught by AAPA, to facilitate proper connection. To the extent that AAPA does not disclose the use of black and white colored marks, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use black and white colored marks to identify the polarities, in order to provide easily distinguishable marks.

Regarding claim 16, Gefvert discloses a multi-channel audio system comprising an electronic apparatus (100) provided on a back panel with at least four audio signal output terminals (see Fig.8B) for a plurality of channels, the at least four audio signal output terminals including a front right audio signal output terminal, a rear right audio signal output terminal, a front left audio signal terminal, a rear left audio signal output terminal (see Fig. 8B); a plurality of speakers (102,104,106,108); and a plurality of connecting cable members (see Fig.8B), each incorporating a pair of conductor members bearing a pair of polarities and sheathed by one of a plurality of insulating sheathing members, each of the audio signal output terminals being arranged corresponding to positions of the plurality of speakers, the speakers being arranged corresponding to the plurality of channels, and all of the audio signal output terminals corresponding to the left channels being arranged to the right of all of the audio signal output terminals corresponding to the right channels (see Fig. 8B). Gefvert also

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discloses a name of the corresponding output channel being displayed surrounding the respective output terminal (see Fig.8B). Please note that Gefvert discloses the output terminals corresponding to the left channels being arranged to the right of output terminals corresponding to the right channels when viewed from the front of the receiver. Gefvert also discloses each of the left audio signal output terminals arranged to the same side of the right audio signal output terminals.

To the extent that Gefvert does not teach the output terminals corresponding to the positions of the speakers as viewed from the rear portion of the electronic apparatus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the position of the output terminals to correspond to the position of the speakers (left and right sides) as viewed from the rear of the apparatus, as taught by AAPA, in order to reduce wire tangling. Please note that modifying Gefvert, as taught by AAPA, results in all of the audio signal output terminals corresponding to the left channels being arranged to the right of all of the audio signal output terminals corresponding to the right channels as viewed from the rear of the apparatus; and the rear left audio signal output terminal is arranged to the right of both of the front right audio signal output terminal and the rear right audio signal output terminal on the back panel as viewed when facing the rear portion of the electronic apparatus.

Gefvert discloses substantially the claimed invention except for the plurality of colors on the signal output terminals. Ruzicka discloses (in col.7 lines 28-33) the use of an audio system having audio signal output terminals being distinguished by one of a

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plurality of colored labels for enabling the plurality of channels to be discernible; a plurality of connecting cable members distinguished by one of the plurality of colors corresponding to a color distribution of the audio signal output terminals; and the speakers being distinguished by corresponding colors to facilitate installation process. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the terminals and cable members of Gefvert with a plurality of colors, as taught by Ruzicka, to facilitate installation process.

Gefvert, as modified by Ruzicka, discloses substantially the claimed invention except for the colored mark displayed surrounding the output terminal. Lee teaches the use of colored indicia, as a colored mark surrounding a respective output terminal (col.2 lines 26-30). This feature ensures a clear view of the colored mark on the output terminal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the colored mark surrounding the output terminals, as taught by Lee, to ensure a clear view of the mark.

Gefvert, as modified by Ruzicka, discloses substantially the claimed invention except for the use of contractile tubes. Siems teaches the use of thermally contractile tubes of different colors secure to cable members to facilitate installation and connection. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use thermally contractile tubes of different colors secure to cable members, as taught by Siems, to facilitate installation and connection. To the extent that AAPA does not disclose the use of black and white colored marks, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to use black and white colored marks on the tubes to identify the polarities, in order to provide easily distinguishable marks and to match the polarities in the back panel and speakers.

Gefvert, as modified, discloses substantially the claimed invention except for the connector structure of the cable members. Glover discloses a connector structure on a cable (see discussion of Glover regarding claim 5) to ensure correct connection. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a connector structure, as taught by Glover, to ensure correct connection.

Ruzicka discloses the use of labels (col. 7 line 31). It appears that the use of label, as defined by *The American Heritage® Dictionary of the English Language, Fourth Edition* as "An item used to identify something or someone, as a small piece of paper or cloth attached to an article", includes the use of sheets. Nonetheless, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the distinguishing colors by one of different known methods, such as using colored labels and/or sheets in order to provide easy identification.

Gefvert, as modified, discloses substantially the claimed invention except for the specific arrangement of the output terminals, i.e. the top and bottom relationship. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use different positioning arrangements for the output terminals as a matter of preference, and since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Gefvert, as modified, discloses substantially the claimed invention except for a display of the pair of polarities. AAPA teaches displaying the pair of polarities in order to facilitate proper connection. It would have been obvious to one of ordinary skill in the art at the time the invention was made to display the pair of polarities, as taught by AAPA, to facilitate proper connection. To the extent that AAPA does not disclose the use of black and white colored marks, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use black and white colored marks to identify the polarities, in order to provide easily distinguishable marks.

Regarding claims 38 and 40, Glover discloses substantially the claimed invention except for the second slit of shorter length. However, it would have been an obvious matter of to one skill in the art at the time the invention was made to add a second slit of shorter length in order to reduce the amount of material used, and since applicant has not disclosed that the second slit solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well without the slit. Absent any convincing showing of the criticality of the design, this particular design is nothing more than the inventor's choice without thereby departing from the scope of the invention. *In re Dailey*, 149 USPQ 47 (CCPA 1976).

Regarding claims 39 and 41, Glover discloses each of the plug connector structure and the socket connector structure has an asymmetric cross section such that one polarity thereof has a shape different from that of the other polarity.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gefvert, Ruzicka, Lee ('718), Siems, Glover, and AAPA, and further in view of and Lee (US 5,984,717).

Glover discloses substantially the claimed invention except for plug connectors at both ends of the cable. Lee ('717) teaches a connector comprising a cable (22) having plug connectors at both ends to provide uniformity and facilitate the connection process. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a plug connector at both ends of the cable member of Glover, as taught by Lee, to provide uniformity and facilitate the connection process.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gefvert in view of AAPA.

Regarding claim 33, Gefvert discloses multi-channel audio system comprising: an electronic apparatus (100) having a back panel with at least four audio signal output terminals for a plurality of channels (Fig. 8B), said at least four audio signal output terminals including a front right audio signal output terminal for a front right channel, a rear right audio signal output terminal for a rear right channel, a front left audio signal output terminal for a front left channel, and a rear left audio signal output terminal for a rear left channel, said back panel being located on a rear portion of the electronic apparatus (Fig. 8B); a plurality of speakers (102,104,106,108) for generating acoustic output for each of said plurality of channels in a form of audio signals output from said

audio signal output terminals; and a plurality of connecting cable members, each of said plurality of connecting cable members incorporating a pair of conductor members for connecting said electronic apparatus to said plurality of speakers.

To the extent that Gefvert does not teach the output terminals corresponding to the positions of the speakers as viewed from the rear portion of the electronic apparatus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the position of the output terminals to correspond to the position of the speakers (left and right sides) as viewed from the rear of the apparatus, as taught by AAPA, in order to reduce wire tangling. Please note that modifying Gefvert, as taught by AAPA, results in all of the audio signal output terminals corresponding to the left channels being arranged to the right of all of the audio signal output terminals corresponding to the right channels as viewed from the rear of the apparatus; and the rear left audio signal output terminal is arranged to the right of both of the front right audio signal output terminal and the rear right audio signal output terminal on the back panel as viewed when facing the rear portion of the electronic apparatus.

Gefvert, as modified, discloses substantially the claimed invention except for the specific arrangement of the output terminals, i.e. the top and bottom relationship. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use different positioning arrangements for the output terminals as a matter of preference, and since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gefvert in view of AAPA, and further in view of Glover.

Gefvert, as modified, discloses substantially the claimed invention except for the connector structure of the cable. Glover discloses a connector using a connecting cable member (5) having two conductor portions having a pair of polarities and an insulating sheathing member, one end of the connecting cable member conforming to a structure of a plug connector (1) incorporating two conductor members (27) connected to the two conductor portions; a socket connector (3) coupled with the plug connector and provided in one of a first or second apparatus, the socket connector being provided with a pair of connecting pins (35) bearing the pair of polarities; and position controlling means (see Fig.7); the plug connector being provided with a pair of coupling holes (27); and position controlling means coupling portion (see Fig.6) to ensure correct connection. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a connector structure, as taught by Glover, to ensure correct connection.

Glover discloses substantially the claimed substantially the claimed invention except for the second slit of shorter length. However, it would have been an obvious matter of to one skill in the art at the time the invention was made to add a second slit of shorter length in order to reduce the amount of material used, and since applicant has not disclosed that the second slit solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well without the slit.

Absent any convincing showing of the criticality of the design, this particular design is nothing more than the inventor's choice without thereby departing from the scope of the invention. *In re Dailey*, 149 USPQ 47 (CCPA 1976).

Regarding claim 43, Glover discloses each of the plug connector structure and the socket connector structure has an asymmetric cross section such that one polarity thereof has a shape different from that of the other polarity.

Response to Arguments

Applicant's arguments filed 12/30/2009 have been fully considered but they are not persuasive.

In response to Applicant's argument regarding the arrangement of the terminals, please note that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Gefvert discloses terminals from one side (right, for example) being located to the same side of terminals from the other side (left, for example). The AAPA discloses putting the right terminals to the right side and the left terminals on the left side (i.e. corresponding to the right to left position of the speakers). Please note that modifying Gefvert, as taught by AAPA, results in all of the audio signal output terminals corresponding to the left channels being arranged to the right of all of the audio signal output terminals corresponding to the right channels as viewed from the rear of the apparatus; and the rear left audio signal output terminal is

arranged to the right of both of the front right audio signal output terminal and the rear right audio signal output terminal on the back panel as viewed when facing the rear portion of the electronic apparatus.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (571) 272-2003. The examiner can normally be reached on Mon.-Fri., 10:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on (571) 272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Felix O. Figueroa/
Primary Examiner
Art Unit 2833